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EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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VETERINARY POLITICS.

We have been more than once told that *The Record* devotes too much attention to veterinary politics, and we often hear practitioners say, "Oh, I don't pay any attention to professional politics. I do not understand the subject, and therefore I take no interest in it." We never hear this expression of indifference without thinking that the man who utters it has failed to fully understand his position. Professional politics is simply the life and progress of the body corporate, and every individual who takes any interest in his profession beyond that limited by commercial results must feel that he has duties and responsibilities over and above making an income. The guidance of the profession is left to the Council, and every member has the right and privilege to share in the election of the governing body, but only one-third exercise their rights. The two-thirds who abstain must include many men of intelligence; but it is difficult to understand the apathy which permits them to look on with indifference, and take no part in the life of the body which gives them an exclusive right to practice, and chiefly regulates their status in society. If all were like them we should be no better than our predecessors were a century ago. They are content to share in our upward progress, to adopt all the advances made by science, to reap all the benefits resulting from other men's work; but they contribute nothing themselves either to science or to the general welfare of the profession. This sort of negligence is pure selfishness, and the indifference to veterinary politics is a mark of decay. Activity is as necessary for corporate progress as it is for individual advancement, and any profession or society is in an unhealthy condition when a majority of its members are guilty of indolence and apathy.

At the present time it is most important that interest should be taken in all our doings. A new charter is being prepared, which, when obtained, will considerably alter many of our corporate arrangements. Some little excitement has been aroused over this matter, but there are many others which require attention, and which must soon come up for consideration. There is no such thing as standing still; we must either advance or fall back; and when a minority is left to push on an inert majority, it is quite a question whether progress is made in the right or the wrong direction. The next question of vital importance that requires attention is the qualifications of men entering the profession. Upon the quality of the individual depends the quality of the collective body, and when all other callings are insisting upon a higher standard of excellence, we must, if we are to retain our position, raise the standard also. We want a better man in each generation, and no question is of greater importance than that of how to obtain him. We have to determine in what way he shall be better, and then we have to arrange a test which shall demonstrate his superiority. In short, we shall soon have to alter our examinations, and we cannot too soon devote attention to how this is to be done so as to ensure that the alteration shall be accompanied by success.

THE PHYSIOLOGY OF LOCOMOTION.

No branch of veterinary practice is more difficult than that connected with lameness, and no knowledge is more sought after by horsemen than that which embraces the form and action of the limbs of the horse. The anatomy of the horse is fairly well understood by many veterinarians, and our teachers have mastered the structure of limbs as thoroughly as they have any other part of the body. There is, however, a large field of knowledge which seems to have been neglected, and the cultivation of which would yield important results. The physiology of locomotion has yet to be written. If any one understands it he has not made his information public, and until he does so we shall remain in ignorance concerning a great many lamenesses and all the diversities of actions to be seen in horses. A treatise on the physiology of locomotion in the horse would require not only that its author should be a scientific man but that he should be a horseman. Some few contributions have been made to the subject, but they have yet to be collected and arranged. The great majority of English veterinarians are in the most complete ignorance of it, and our students seldom know even what is meant by the term. To know a little more than our clients, seems to be accepted as the only necessary learning we require, and certainly there is not much encouragement for extra study or research so long as it pays quite as well to disguise ignorance as to display knowledge.

THE VETERINARY ART IN 1790.

The letter we reprint this week was kindly unearthed for us by Mr. Kettle, A.V.D. It is interesting as being one of the means used to draw attention to the necessity of a Veterinary College in this country. It is believed to have been written by Mr. Granville Penn and probably with the assistance of St. Bel. The letter has also a distinct bearing on the use of the word "veterinary," for it will be seen that the author considers it necessary to explain what the veterinary art is; and he refers to the empirical practice which then obtained in these words: "If we consider its present state in this country, *under its appellation of farriery*, we see it in as deplorable a situation as was the art of medicine during the barbarous centuries." In those days the surgical treatment of animals was known as "farriery"—the word "veterinary" was not used, and was only then being introduced from the French.

CASES AND ARTICLES

EQUINE VARIOLA OR WHAT?

By Charles Sheather, F.R.C.V.S., London.

On July 19th, 1891, I was requested to attend a bay gelding, well-bred, and five years old, which had been supposed to be suffering some four or five days, from "a feverish cold," for which he was treated by the owner's servant. As on the date named the animal appeared much worse, an anxious and reiterated demand for help late at night was the result.

An examination of the case that night and the following morning gave the subjoined information.

The horse was dull, heavy looking, disinclined to move; the pulse was 88, and weak in impulse; moving the animal a few steps serving to accelerate it to over 100; the thermometer registered 105·6 in the rectum. The mucous membrane of the eyelids exhibited a rich yellow colour, that of the mouth was dry and yellow, the surface of the tongue being brown, appetite was absent, the respiration was at the rate of 30 efforts a minute, there was no cough, while auscultation revealed negative results, percussion eliciting tenderness over the inferior extremities of the ribs, along the back and particularly across the loins. His ears and limbs were cold; urine, frequently passed in small quantities, was clear and bright yellow; fæces were sloppy, green, and fermenting. Thirst was considerable; while drinking he would make exaggerated gulping efforts, leading to the conclusion that he had relaxation if not soreness of the throat. He was restricted to cow's milk diet, and for a few days he consumed three gallons daily.

On the night of the 20th of July he showed signs of abdominal pain, the bowels remained relaxed, and he lay down and groaned a great deal, was very restless, evidently being in more pain down than when up, and rose with difficulty, exhibiting the greatest exhaustion; his pulse was sometimes over, sometimes under 100, even after drinking a small quantity of milk he would be in pain, and lie down and look back at his flanks; his temperature was 106 and his respiratory movements 40 per minute.

About mid-day on the 21st he was considerably better, his pulse was 86, but weak, his temperature 104, the fæces were firmer and free from fermentation; urine was passed in better quantities, not so frequently, and was of a better colour; the man in attendance declaring that his "blowing stopped all at once," that he wanted to feed, and had had no pain during the morning. The yellowness of the membranes was fading rapidly, and he exhibited some signs of appetite: but coincident with the very remarkable and sudden improvement, other phenomena became apparent. In his left nostril, on the common integument, not on the mucous membrane, there appeared a number of conical elevations, possibly twelve to sixteen in number; on the off side of his body there was an abundant crop, possibly thirty, of the same description of elevation but somewhat larger individually; they were prominent cones of a height of $\frac{3}{8}$ of an inch, and very painful to the touch.

There were about twenty on the near side of his body, five or six distributed over the loins and quarters, four or five under the abdomen, and a string of seven or eight extending from the left nostril to the submaxillary lymphatic glands, which themselves, became very tender but only slightly swollen. Those in the left nostril were grouped close together; on the two sides of the body the grouping was fairly even as to position, and the elevations averaged a distance of $1\frac{1}{2}$ inches or 2 inches apart.

In proportion as this cutaneous disorder developed so did the constitutional disturbance decline, the pulse and temperature, however, not returning to normal while the eruption existed. There were no papules, pustules, ecchymoses or other disorder of the mucous membranes of the eyes, nose nor mouth.

On the 22nd the pulse was 60, the temperature 103, there was a readiness to move freely; the limbs were of equitable temperature, and a decided appetite returned. The left nostril and the nose generally were much swollen, very tense and shining, and particularly painful, and at first sight the patient appeared to be developing purpura hæmorrhagica, but the extreme painfulness of the enlargement, the apparently healthy condition of the mucous membrane of the nostrils and mouth, and the absence of swelling elsewhere distinguished it from that disease.

On the 22nd and 23rd every elevation showed a lid, so to speak, of necrosed skin, but not all of them exhibited just the same particular stage simultaneously; pus mixed with serum flowed away from each in a complete stream. As soon as detachable the "heads" were removed, the pus discharging freely, and might be described as "laudable," with serum mixed with it.

The elevations declined, but were fearfully painful, the nose was of enormous size, but from each orifice, which now marked the positions of the original elevations, pus ran continuously; these openings appearing as if punched out of the tense shining skin of the nostril, and at least half a pint of pus of creamy consistence flowed in a day from the cluster of orifices in the nostril. This description applied to the other skin lesions, the pus discharge being continuous and out of proportion to the size of the openings; at this time he showed an antipathy to milk, but his appetite and cheerfulness returned; he lay down, rested well when down, and gave other signs of general improvement; his pulse was 60, and his internal temperature 103.

On the 24th and 25th of July his general condition remained about the same; on the off side the pus simply poured from a small orifice on the shoulder, and backwardly from this a fluctuating distension of the skin ran to another which discharged intermittently; the latter was about sixteen inches from the former, but an injection proved they communicated.

The pain when these openings were touched seemed intense. The nose had diminished very much, but the discharge of pus from it was still enormous, the openings were enlarging, and where close together became confluent, forming irregular jagged figures surrounding deep pits, and hollows which extended under the edges.

On the 26th and 27th there was continued improvement; the pulse fell to 50, the temperature to 101, granulations appeared round the edges of the openings, causing the edges to look thick, where they previously appeared attenuated, and they even bulged upwards from the depths of the cavities.

The pus formation ceased, and the animal, although very weak seemed cheerful, had a good appetite, moved about readily, and had lost the extreme sensibility in the spots. The majority of the latter, especially those which had become confluent, showed the formation of a dry-glue-like, hardened, deep brown scab. This scab was easily detachable from the surfrce of the granulations, and it did not quite wholly cover them but left a space between its edge and the healthy skin.

The progress now made was rapid, the ulcers healed most quickly under the dark brown scabs, the pulse and temperature became normal, and the appetite was good.

On August 1st I considered the case required no further skilled attention, although considerable emaciation and debility remained, but the skin lesions were almost healed.

The case presents many of the features of an acute attack of variola equi, but is very interesting from the severity of the constitutional symptoms. They seemed to denote a catarrhal condition of the gastric, intestinal, and vesical mucous membranes at the onset, with bilous complications. Another interesting point is the extreme suddenness with which they subsided when the skin lesions appeared, the "blowing," as it is commonly termed, ceasing with marked abruptness. The case has some points which ally it to erysipelas. This case has not been unique in my practice lately, but it has certainly been the most violent and well defined one.

I rather wished I had a good bacteriologist among my circle of friends, as some cultivations might have proved very interesting. A practitioner has no time himself to pursue all absorbing researches with the regularity and completeness they demand.

NOVEL CURE OF SCHIRROUS CORD.

By W. R. Davis, M.R.C.V.S.

A case of schirrous cord which I treated last winter and which I have had an eye on ever since may interest some of your readers. To me at any rate the result of the treatment was certainly a revelation.

In November last I was asked to examine a gelding 2 years old, as his off hind leg was swollen and he was lame. The sheath and the inside of the leg were swollen and tense. It was evening, the colt was restive, so I gave a dose of physic, ordered fomentations, and went the next day. I found a a soft spot in the scrotum into which I pushed an abscess knife; several table spoonfuls of serum were discharged. The fomentations and a sedative lotion were applied for a week. I then found the swelling limited to the cord, which was very hard, and could be felt up as high as the inguinal canal as big as a man's biceps. The incision was still open and discharged very little. I could push my finger right into the cord which felt cartilaginous. I told the owner that the only chance was to remove it. He objected, so I gave him a syringe and an injection of mercuric chloride to wash it out. This was used for two months, the unhealed incision still discharging a small quantity of pus. At length in February, I got a message to come and operate. I cast the horse, put him on his back, and was about to cut when the owner asked me if there was any risk. I said of course there was some risk. He seemed to hesitate, and as I did not relish accepting much risk myself I offered to cut well into the tumour and let the colt have another chance. I thereupon made a long incision right into the middle of the tumour; nothing escaped but blood and a little serum, and I injected a solution of mercuric chloride, 3gr. to 1 oz., and left a bottle to be injected twice a day. I told the owner that it was not a bit of good, that the cord would have to be removed at last, and that indeed, it might in the mean time extend into the pelvis and kill the colt. Two or three more bottles of lotion were obtained. One day being at the farm on other business I asked to see this colt when to my utter astonishment I found the wound closed, the parts soft and no swelling to be detected. I have no doubt that some of your readers will think that this was an abscess with thickened sides, but it was nothing of the kind. I have removed two schirrous cords with the ecraseur, and this was precisely similar to them in appearance when cut into.

The horse had been castrated with the actual cautery when he was 12 months old. I shall certainly try the same treatment again.

INTESTINAL OR UTERINE?

(An Instructive Case.)

By C. Ward, M.R.C.V.S.

I was called to see a black mare one night, which was said to have gripes, another man, a registered practitioner, had been treating her. She was due to foal, and was seen one day to be a little pained, but otherwise no sign foaling.

The registered man had given her aloes, and some other drugs as a *colic* dose.

When I saw her, she was rolling about, and showing every symptom of colic. But I noticed that she now and then made slight and very weak attempts at straining. The vulva was swollen on, if I remember rightly, the left side only.

Her temp. was 104½ up to 105½ during the time I attended her, pulse hard and feeble- I thought there must be something wrong with the uterus, and on examination found the os uteri open, and the hocks of the foal presenting. After a little manipulation, the foal was removed, and it may be truly said that it was "rotten." Its hoofs came off, and teeth came out, and the poor mare discharged about a gallon of green fluid. I had the uterus well washed out, gave febrifuges and the best of food, but she was too far gone, and said good bye to all 'ere many hours had passed.

Caution :—Always examine per rectum et vagina in cases of colic. It had been taken for colic by the registered man, and was only found to be something much more dangerous by examining per vagina.

OUR TITLE,

By H. KIDD, F.R.C.V.S.

The article which appeared recently in *The Record* on the word Veterinary, is so closely allied to the subject of this paper that a very important question is raised, and one on which the profession has never, at any time, been asked to express an opinion—as to the exclusive right of members to the title of Veterinary Surgeon. When the question has been raised at the Council, it has always been summarily set aside, either as unworthy of consideration or from sheer indifference to the right of title.

We hear a great deal these days about the protection of vested interests, and a very striking instance of this was decided a few weeks ago, where a servant had been dismissed who had held the post for number of years; he sued the Board and was awarded compensation. Our vested interest is our title, and I am sure the legislature has not and never intended depriving us of it.

The question has several times been asked "Whether existing Practitioners are entitled to call themselves Veterinary Surgeons." In nearly every instance a very guarded answer has been given; several members of the legal profession have been consulted by private members of R.C.V.S., and they are not by any means unanimous on the point. Some affirming that the title is exclusively ours, whilst others think that existing practitioners may use it. There is not a shadow of doubt that the Charter of 1844 gave M.R.C.V.S. the exclusive right to the title—this has never been denied; and the question which remains for settlement is "Has the Veterinary Surgeons' Act, 1881, amended this clause?" It is a noteworthy fact that Section 13 made provision for registration of Foreign or Colonial Practitioners as Veterinary Surgeons who held a RECOGNISED VETERINARY DIPLOMA and they became to all intents and purposes members of the said Royal College. But note what was done with those who had no Diploma; Section 15, says "Where at the passing of this Act any person practises and has continously, for not less than five years next before the passing of this Act practised Veterinary Surgery in the United Kingdom, but is not on the Register of Veterinary Surgeons, he shall be entitled, subject to the provisions of this Act, to be placed on a separate register under the heading of "EXISTING PRACTITIONERS." This to my mind clearly shows that the Legislature gave protection to the vested interest of Farriers to practise and to charge fees, but it did not give them the right to call themselves Veterinary Surgeons. Section 17 states "If after the 31st day of December, 1883, any person other than a person who for the time being is on the Register of Veterinary Surgeons, or who at the time of the passing of this Act, held the Veterinary Certificate of the Highland and Agricultural Society of Scotland takes or uses the title of Veterinary Surgeon or Veterinary Practioner, or any name, title, addition, or description, stating that he is a Veterinary Surgeon or a Practitioner of Veterinary Surgery, or of any branch thereof, or is specially qualified to practise the same, he shall be liable to to a fine not exceeding £20." It thus appears quite plain from this section that there are only two classes of persons entitled to use the title of Veterinary Surgeon or Veterinary Practitioner, viz. those whose names are *on* the Register of Veterinary Surgeons and those who hold the Veterinary Certificate of the Highland and Agricultural Society of Scotland. Those persons which Section 15 provides for are not *on* the Register of Veterinary Surgeons, they are *in* the Register but on a separate Register under the heading of "Existing Practitioners."

Then the preamble of the Act says "It is expedient that provision be made to enable persons requiring the aid of a Veterinary Surgeon for the cure or prevention of diseases in or injuries to horses and other animals, to distinguish between qualified and unqualified practitioners. I don't think any one would be bold enough to say that a person who had never studied at a recognised college nor passed any examination nor held a Diploma, could in any way be called a qualified Practitioner. If the Legislature placed "existing Practitioners" on a level with those who spent time and money &c., in gaining a knowledge of the profession (which I contend it did not) then why are appointments in the Army not open to them? The property of the British Stock-owner is of greater value than the Army horses.

VETERINARY SOCIETIES.

SOUTHERN COUNTIES V.M.A.

The next meeting will be held at the First Avenue Hotel, Holborn, on Wednesday, September 23rd inst.

Professor F. SMITH will give an address—subject, "Disease of the Facial Sinuses in the Horse." Chair to be taken at 2.30 p.m.

C. PACK, *Hon. Sec.*

THE MIDLAND COUNTIES VETERINARY MEDICAL ASSOCIATION.

A meeting was held at the Star and Garter Hotel, Wolverhampton, on Friday, August 7th, 1891. The President, Mr. Malcolm occupied the chair. There were also present Prof. McFadyean, Messrs. Beddard, Pritchard R. Cartwright, J. E. Cartwright, Wolverhampton; Blakeway and Gibson, Birmingham; Wartnaby, Burton-on-Trent; Trigger, Newcastle-under-Lyme; Chambers, Dudley; Collett, Dawes, and Dr. Manley, West Bromwich; Horten, Warwick; Russell, Grantham; Merrick, Northampton; Pemberton, Bridgwater; Paley, Walsall. Visitors, Messrs. Kidd, Burton, Bakewell, Beddard, Watson, Cuerton, and Welsh.

The Hon. Secretary read letters of apology from Professors Pritchard, Walley and Williams; Sir H. Simpson, Messrs. Greaves, Olver, F. Blakeway, Over, and others. The Hon. Secretary read the minutes of the last meeting.

New Members.

On the motion of the President, seconded by Mr. Merrick, Mr. F. B. Barling, of Monmouth, was elected a member. On the motion of Mr. Trigger, seconded by Mr. Smith, Mr. Coe, of Stoke-on-Trent, was elected a member. Mr. Wartnaby proposed and Mr. Dawes seconded the nomination of Mr. Michael Sadler, of Burton-on-Trent.

"ON SUPPURATION."

By Prof. McFadyean, M.B., B.Sc.

Professor McFadyean then opened a discussion on suppuration. Suppuration, he said, was a morbid process characterised by the formation of pus. This pus when examined microscopically was found to be composed of a liquid and suspended cells—the pus corpuscles, and suppuration appeared to be a variety of exudative inflammation in which the inflammatory exudate remained liquid, and even the solid textures of the inflamed ones underwent liquefaction. So far the nature of suppuration and the minute structure of pus had been known for a long time, but until a comparatively recent date what was in one sense the most important element in pus had been overlooked. About ten years ago Ogston of Aberdeen showed that when pus from an acute abscess was properly examined it was possible to make out in it numbers of minute spherical organisms, which, from their being generally grouped together like a bunch of grapes, he termed staphylococci. The apparently constant presence of these organisms in pus was strong presumptive evidence in favour of their being causally related to suppuration, and Rosenbach, Passet, and others, taking up the investigation, succeeded in isolating and cultivating in a state of purity a number of different organisms found in pus. The commonest of these was the staphylococcus aurens, which from its manner of growth in different culture media was an easily recognised organism. This organism had the power of liquifying gelatine and even of digesting coagulated albumen, apparently in virtue of some peptonising substance elaborated by it.

In holding the micro-cocci found in pus over the actual cause of suppuration they had not to rely solely on the constant presence of those in pus, for experiments on animals, and more conclusively still on man, had shown that with pure culture of the staphylococcus aurens they could set up suppuration at will. Garcé, Bochardt, and Bumm had thus been able to produce the most typical abscesses, boils, and carbuncles, and the final step in the proof was thus led. Against the view that these micro-organisms were the cause of suppuration it had been urged by Grawitz and others that it was possible to set up suppuration by germ-free substances, but while it had, perhaps, to be admitted that this was experimentally possible, the facts appeared to justify the conclusion that suppuration occurring naturally was always associated with the presence of micro-organisms, and that organisms were as truly the cause of suppuration as the anthrax bacillus was the cause of anthrax—in short that without micro-organisms there was no suppuration. While suppuration was thus as truly microparasitic in its nature as anthrax, it was not a specific affection like the latter, for they were already acquainted with quite a number of different organisms that had been known to have pyogenic properties for one or more species of animal. As illustrations he referred to the strepto-coccus of strangles, and the discomyces found in scirrhous cord. All the necessary evidence had been produced to show that strangles was caused by a minute organism—a strepto-coccus—which was invariably to be found in the pus formed in that disease, and in like manner it had been proved that the so-called scirrhous cord resulted from the presence of the discomyces or micro-coccus as coformans.

Discussion.

The Chairman said the able lecture which they had had from Prof. McFadyean opened up a wide field for discussion. The explanations of the causes of suppuration in acute strangles, scirrhous cord, and in tumour were of much interest, and worthy of great consideration, and he hoped the members would enter into and fully discuss these matters.

Mr. Trigger agreed with the chairman that the explanation of suppuration in the formation of pus as explained by the lecturer was of very great interest and worthy of serious study, but to him it was a question of considerable difficulty. Of course he should accept the conclusions which the professor had arrived at as he had not the temerity to question those of one of the most eminent pathologists of the day. It was only when they came to the practical part of the subject he could express his opinions. In his experience the chief way to prevent pyemic diseases was simply by securing absolute cleanliness in operation, such as castration, it was necssary not only that the instruments were perfectly clean but that the hands of the operator be also clean before operating. He cited a case which had come under his own observation, in which a gentleman lost a number of lambs after castration. The operation had been performed by the shepherd with a knife which he had used to pare the feet of sheep suffering from foot rot, and had not subsequently cleaned. That this was the cause was proved by the shepherd having castrated two lots of lambs on the same day. In the one lot there was no fatality he having used a clean knife to perform the operation, but in the other many of the lambs died. Another curious case was one brought to him for treatment, at the end of the tail there was a large tumour (so-called turnip tail) which when amputated weighed about two pounds. It seemed to consist chiefly of fibrous tissue in which there was one or two suppurating centres. The pony had been previously docked by a blacksmith, who being unable to arrest the bleeding, had applied a ligature to the end of the tail and left it on for a considerable time; and it was his (Mr. Trigger's) opinion that this was the cause of the formation of the tumour. He docked the pony and allowed it to bleed as long as it would, and he was pleased to say that the result was satisfactory. He forwarded the tumour to Prof. McFadyean.

Mr. Merrick said he had listened with very great pleasure to Prof. McFadyean's lecture. It clearly proved

what immense value microscopical research was to veterinary science, and the pupils at the colleges at the present day had opportunities for study which were not available in his day. He should not venture any remarks on the highly scientific address given by Prof. McFadyean, but would content himself with a few practical observations. With regard to strangles he thought that disease was a good deal attributable to young horses being brought up from the country and confined in close stables, where the atmosphere and drainage were bad. He had known two or three cases of this description where colts which had commenced with strangles and had afterwards been attacked with mesenteric abscesses in the liver and glands.

Mr. WARTNABY remarking on the vast strides which have have been made in bacteriological research, said that with regard to the tumours of the shoulder which Prof. McFadyean had referred to, he had seen them disappear in a very reremarkable way after being punctured in several places with an exploring needle. In his opinion these were more schirrous cords following the use of the ecraseur than the actual cautery. He also thought that the surroundings at farm houses, as a rule, were not what could be desired for the patient after castration. He would like to know if Prof. McFadyean advocated antiseptic dressings after the operation.

Mr. HORTEN, after thanking Prof. McFadyean for his very interesting address, said he would like Professor McFadyean in his reply to the general remarks to give them his views as to how the germs which he had just told them was the constant cause of suppuration got into the tissues sufficiently deep to cause poll evil, and abscess on the withers, etc.; he could quite easily see how they could get into a wound like the one made in castration and then set up the suppurative process, but he would like to hear the theory put forward to account for their gaining admission when there was hardly an abrasion.

Mr. BLAKEWAY asked Prof. McFadyean if he could give an explanation of the relation of stangles to influenza, if there was any, or if they were two distinct diseases.

The PRESIDENT before calling upon Prof. McFadyean to reply, said he should like to join with the previous speakers in expressing his indebtedness for the remarkably learned and able address they had heard. In explaining the part that organisms play in the production of suppuration he has made us very sensible of the absolute necessity for cleanliness, and for the proper use of antiseptics in the treatment of wounds if we wish to gain the best attainable results. He has shown us that without organisms no suppuration takes place, and consequently by their exclusion wounds may be treated without the formation of pus. In some cases that come before us this is a matter of the very greatest importance The other day I saw, with Mr. Dawes, a case in point, which it may not be amiss to mention, a cart horse with suppuration of foot, from an injury, had made a fair recovery; but after being at work a fortnight or so he had to be laid off again on account of the formation of a quittor at the outside quarter of the coronet. On probing this it was found to extend downwards inside the lateral cartilages, and you will all know how difficult some of those cases are to handle. The question was, could we effect a cure without making a depending orifice? It was a good case for testing the efficacy of antiseptics, and I must say the result was most gratifying. We syringed out the sinus with a solution of corrosive sublimate, and then plugged the orifice with tow antisepticised with the same agent. This was repeated every other day for a week, with the result that suppuration was entirely stopped. A sharp blister was then applied to the coronet, and the case made a capital recovery. With reference to Professor McFadyean's remarks on scirrhous cord, you will all remember that Prof. Pritchard, in speaking of this disease sometime ago at Stafford, stated that he believed scirrhous always followed a sinus; but Prof. McFadyean goes a step further, and practically tells us the sinus is caused by the organisms of suppuration. This being so it is clear that scirrhous following castration ought to be preventable. Coming to the question of strangles, I have been somewhat surprised that speakers have not gone into the question of its contagious character. In large studs when the disease is introduced, and especially if it is of a malignant type, this becomes a question of much importance. Personally, I have not a shadow of a doubt about it being contagious. You have only to introduce it into a stable to find that nearly all the young horses previously free from the disease become affected. Two well marked extensive outbreaks of this kind have come under my own notice, and I have already put them on record in Prof. McFadyean's journal. And I now invariably treat every case of strangles as an infectious disease.

Professor MCFADYEAN, in replying, said that he was not prepared to say that the discomyces was the only cause of scirrhous cord; but he thought that none of the commonly credited causes, such as leaving the cord long, or the formation of adhesions between the cord and the scrotal wound were of themselves capable of setting up the condition. He was unable to say what could have been the nature of the periodic enlargement of the cord referred to by Mr. Trigger. Scirrhous cord was frequently found in horses many years after castration, but he did not consider that incompatible with the view that infection takes place at the time of the operation, or before the scrotal wound has healed. He believed that all forms of suppuration, whether occurring in the spermatic cord or elsewhere, were caused by micro-organisms, and said that recent investigations regarding tetanus made it doubly necessary that they should strive after an aseptic healing of all wounds.

The so-called *brustbeule* or shoulder tumour was undoubtedly caused by the discomyces, which was propably rubbed into the skin by the collar. Fistulous withers probably had the same mode of infection, but perhaps, previous bruising favoured or was necessary for infection. The shoulder tumours were very difficult to treat, and sometimes nothing short of removal with the knife would succeed.

Strangles, he thought, never arose spontaneously. It was caused by the streptococcus of that disease, which was inspired with the air and penetrated the nasal mucous membrane. The infection might be direct or by means of contaminated litter, wood-work,, etc. There was no connection between influenza and strangles, save perhaps, that an attack of the one might predispose to infection with the other. Cold alone would not cause strangles, but he thought it quite possible that warmth, as recommended by Mr. Smith, if combined with good ventilation, exerted a favourable influence on the course of the disease.

A vote of thanks to Prof. McFadyean was heartily adopted. It was decided to hold the next meeting at Burton-on-Trent.

The members afterwards dined together, and a very pleasant evening was spent.

H. J. DAWES, *Hon. Sec.*

DIGESTIVE FERMENTS are more generally distributed than we imagine. There is one always in urine which dissolves febrin; this is uropepsin. The quantity varies according to the individual, and not according to health. There is also a trypsin in the urine—urotrypsin—which differs from pancreatin in not being destroyed by boiling. Further, the urine contains uroptyalin, which is an amylolytic ferment. A similar ferment is found in the sweat—hideoptyalin.—*Chemist & Druggist.*

EXTRACTS AND NOTES.

VETERINARY SCIENCE IN 1790.

Reprinted from a letter to The Gentleman's Magazine, March 5th, 1790.

I take the liberty of addressing to you some reflections on the subject of veterinary medicine, in hopes that the importance of the art itself, and the necessity of pursuing it in this country, will be sufficient motives to induce you to give them a place in your next monthly publication. And it must assuredly be matter of no small surprise to you and every friend to science, that in a country where the other arts have been raised to so high a point of perfection, this one alone, in itself so excellent, of such extreme utility to the society, should be neglected and consigned to the hands of incapacity and ignorance. That the art of veterinary medicine is of such importance, I wish to make appear through the medium of your magazine, not fearing that the publick of an enlightened and judicious nation will readily yield to the impression of truth, and be as ready to vindicate this branch of knowledge also from the contempt under which it so unjustly labours, as those which, under their protection, have been already extended to the general benefit and information of mankind.

The veterinary art is a practical application of sure and scientific principles to the promotion of health in domestic animals, and to the cure of their diseases, in the same manner as the art of medicine applies them to the health and preservation of man; and the science on which this art is grounded, and which it requires for its perfect exercise, comprises the natural history, anatomy, physiology, and pathology of these animals, together with such portions of the vegetable and mineral kingdoms as are connected with them, either in the way of aliment or remedy. Such is the nature and such the extent of veterinary medicine; by which view its excellence is sufficiently evidenced to those who know the importance of the art of human medicine to man, or know how to estimate the value of truth and certainty above ignorance and error; and if our farriery, which presumes to represent this art, were to be tried by this test in the single instance of the horse, we should exactly find it wanting in that fundamental science which alone renders it either efficacious or secure. The deplorable state of farriery, considered as a branch of natural knowledge, has long been a subject of lamentation; destitute, in general, of either principle or reason, and playing with instruments and poisons like a madman with fire. The good sense of the age has at length caught the alarm, the art is itself suspected, and its practitioners distrusted; and though some of late date, desirous of bringing it some ready relief, have applied to it principles which they have drawn from their knowledge of the human system; yet, however good their intentions might be, they have, in many instances, only served to introduce new errors, inasmuch as the laws of the several animal economies are by no means always uniform, but are found to be often different from, sometimes contrary to, each other. To reason thus analogically from the man to the horse, was as preposterous, and as insufficient as to conduct a disease in man merely by a knowledge of the structure of brutes. It was necessary, on the contrary, to make a special and accurate investigation of the economy of the animal itself, and to observe minutely the different effects that the different subjects of the materia medica might have had upon it; it was necessary to repeat these enquiries with the same exactness for every animal that was to be considered as a natural object of the art; and, moreover, to superadd such a knowledge of the human anatomy as might be of use in the way of comparison. A plan of study like this required leisure and competence, and was far beyond either the capacity or circumstances of those to whom farriery has been hitherto abandoned; and yet such is the importance of the art, that a course of study as long and as circumstantial is indispensable for those who would fully, fairly, and honourably engage in the exercise of it. Its importance cannot be called in doubt, as it is in direct proportion to the importance of the objects on which it is employed; the value of our cattle is the infallible rule by which to appreciate the value of the art.

If we consider its present state in this country, under its appellation of farriery, we see it in as deplorable a situation as was the art of medicine during the barbarous centuries, when the gross ignorance of its professors brought a disgrace upon the art itself, and when many diseases, which now yield readily to a judicious treatment raged without control. If we look into antient history, we discover that, before the downfall of the Roman empire, which crushed in its ruins all arts, sciences, and literature, veterinary medicine was esteemed among the most important objects that an enquiring mind could consider—connected on the one hand with human medicine, and on the other with agriculture, it both enlarged the stock of medical knowledge and improved the uses of agriculture and the whole rural economy. So valuable a branch of natural knowledge, without question the most valuable next to that of human medicine, was not without its admirers and patrons in Greece and Rome, and even in Carthage, where Mago composed an elaborate work on rural and veterinary matter, which seems to have been in great authority with the Latin writers, and particularly with Columella; of whose twelve books on husbandry, four treat of veterinary matter properly so called.

The course of human and veterinary medicine proceeded together till they both fell at the irruption of ignorance and barbarity; but at the revival of knowledge, when medicine and the other arts were restored to their former consideration, it was the undeserved lot of this alone to be continued in neglect, and to be left to the undisturbed possession of the most illiterate and obstinate of men. To withdraw it from its obscurity, and to restore it to that rank among the arts and sciences which it was its right to hold, was a glory reserved to France, whose

free and independent spirit, so congenial with our own, has shown us how to do away with every petty prejudice which might oppose itself to our adopting her example.

It was in the year 1762 that a regular school was founded at Lyons for the study and improvement of veterinary science, with every convenience for that purpose, as amphitheatre for dissections, botanical garden, laboratory, professors in chemistry, materia medica, &c. This presently gave rise to a similar one in Paris; and the example was soon followed in Germany, Denmark, Sweden, and, latterly at Berlin. To this country, whose breeds of cattle are hardly to be matched in any part of Europe, the numbers of which render them objects of the tenderest concern, which is still increased by the high price they bear—to this country it still belongs to follow these examples, and, in advancing the art to an height hitherto unattained, to make it some amends for the neglect we have shown it, and to extricate it effectually from the ignorant and barbarous hands that till now have ventured to exercise it, &c., &c.

ANNUAL REPORT OF THE BOMBAY VETERINARY COLLEGE.

The report for the year 1890 which has just reached us has a melancholy interest as reminding us of the loss of its late Principal, J. H. Steel. The report is signed by G. J. R. Rayment, A.V.D., the new Principal; but is written chiefly by Dr. Nariman, who has acted as chief since the death of Steel.

The College has its difficulties. The art and science is not yet properly appreciated in India. The course of study is long and difficult, and graduates, when they have succeeded in obtaining the diploma, find it difficult to get any appointments with a remuneration at all adequate to the time and trouble devoted to qualifying. In 1886 there were 69 students; in 1887, 80; in 1888 they fell to 75; in 1889 there were only 49, and in 1890 a further decline to 42. On these figures Dr. Nariman says:—

"To improve the state of the College, to better the prospects of the graduates, and to save the College from a slow but steady decline, either the Government must be prepared to guarantee a few appointments every year to graduates, or else it is essential to fall back on a scheme once approved by the College Managing Committee when considering the draft-College rules and regulations, but since abandoned. Under this scheme, the College curriculum will be divided into two main branches, one comprising a three-years' course as at present, and the other extending only over two years. The latter course will be of a thoroughly practical nature, and students who go through it will be subjected to oral and practical examinations, after passing which they will be entitled to receive certificates from the College as veterinary assistants. The holders of such certificates will not have such high aspirations as the present graduates, and they will easily obtain suitable employment as salutris in the Commissariat Department, in the Horse-Breeding Department, in the Police, under Local Boards, etc., on moderate salaries. The present diploma must be retained for students who go through a three-years' course of study, but only those should be admitted to this course who join the College after passing the Matriculation or School Final Examination of the University, or else pass a strict entrance examination at the College, comprising all the subjects required at the English veterinary colleges, and whose previous training and physical stamina are such as to ensure their becoming good veterinarians and thus do honour to the College. Under such an arrangement there would be some chance of getting the College affiliated to the Royal College of Veterinary Surgeons, as the insufficiency of our present entrance test is believed to be the main reason which led the Royal College authorities to refuse the concession, among others, to the Bombay Veterinary College some time ago."

The late Professor Steel apparently attempted too much, and on page 5 of the report a very sensible paragraph appears which points out the difficulties of over-elaboration:—

"The revised course of instruction, proposed by the late Mr. Steel and approved by Government, was followed in its entirety. The experience of the teachers in regard to the new course is that it throws unnecessary burden both on teachers and students. Many subjects, which can with advantage be taught in the general lectures on medicine and surgery, and which can be grouped with other allied subjects, are put down as separate subjects. Again, some of the subjects are totally practical, and so can never be efficiently taught in the lecture-room. It would be a great advantage to the students if more of their time is devoted to practical work than to theoretical studies. Under the present arrangement, the C. Class students have hardly sufficient time to attend to the practical work as they have to learn a large number of minor subjects from books or lectures. It is at the same time gratifying to note that the students in general are taking considerable interest in practical work, and they have done well also in the practical portion of the last professional examination."

Concerning the late Principal, Dr. Nariman says:

"In the death of Veterinary Surgeon J. H. Steel, F.R.C.V.S., F.Z.S., this College has lost its very backbone. During his career in the College he had endeared himself equally to all, his colleagues, graduates, and students. He showed considerable tact and zeal in organizing the College, the first of its kind in the whole of India, and the present high status of the institution is to a great extent due to his exertions. It is a matter of great satisfaction to note that the members of the staff and the graduates and students of the College have collected a decent sum of money, part of which is to be spent on a bromide bust of the deceased, to be placed in a prominent place in the College, and out of the remainder a silver medal bearing his name will be instituted, to be awarded to the student who passes the examination with the highest number of marks

in *handling of animals*—a subject in which he took the greatest interest."

The report contains a serious indictment of the managers of the College, and goes to show that the natural unhealthiness of the site has been made more deadly by disgraceful bungling and negligence;—

"The whole district of Parel is malarial towards the latter part of the rainy season and for about a couple of months after the rains. During the remainder of the year, however, the Parel district is as healthy as the other districts of Bombay. Unfortunately for the College such is not the case with the hospital grounds, which are fearfully unhealthy throughout the year

"The special causes of the unhealthiness must be sought for in the compound itself, and it is not difficult to trace them for one who knows the ins and outs of the place. These are as follows:—

"(*a.*) The foremost reason is that, in a large portion of the compound, the soil is artificially made up. When the hospital was being started the soil was for the most part rocky, and composed of black stones. In fact, being impermeable, it was a very desirable and healthy soil, but for some reasons of their own, possibly with the object of cultivating the soil, the hospital authorities got the stones removed to a depth of 3 feet, or thereabout, and filled in the vacuum with dirty earth, mostly obtained from the compounds of mills situated near the hospital. The present nature of the soil, rocky underneath and alluvial at the top, keeps the water all throughout the year very near the surface, as there is no chance for the water soaking into the ground to penetrate deeper, and get mixed with the underground water.

"(*b.*) The liquid excreta, together with a portion of the solid excreta of some 200 animals and surface washings of the stables are collected daily in cesspools outside the wards which are emptied some time in the day, the contents being thrown roundabout *within the compound* either on carriage roads, or under toddy trees, or in the fields.

"(*c.*) The filth from the dissection and *post-mortem* rooms, though collected and removed in municipal carts, often soaks in the grounds behind in sufficient amount to produce deleterious effects. The same may be said of the College privies which are used daily by forty to fifty persons, and have yet no cesspool or channel for the liquid excreta and washing water to pass, and hence all these soak in the surrounding ground.

"(*d.*) The hospital privies, which are used by nearly a hundred persons, have cesspools, which are cleared only twice in a week; the stench from these at times is abominable, and quite sufficient to sicken persons.

"(*e.*) Two years ago, notwithstanding the protest of the College officers, a large pit was dug in the hospital compound for manufacturing manure by collecting the solid excreta, refuse, grass, etc., and allowing the contents to decompose by exposure to sun and soakage of rain water. As a consequence, within a few months the place became so unhealthy that the pit had to be closed, but unfortunately the greater part of the decomposing material is still there and not removed."

The Government of Bombay seem now to have wakened up to the danger of the position, and it is probable that the College will be removed to Poona.

Commenting on the report is a letter from the Education Department, Bombay Castle, the concluding sentence of which runs thus:—

"In reviewing the last report Government expressed their sense of the energy, devotion, and skill with which Mr. Steel had performed his multifarious duties, and it is with deep regret that the Governor in Council must recognise that he sacrificed his health for the good of the College. It is, therefore, the imperative duty of Government not to subject his successor or the other officers of the College to the avoidable risks of an insanitary neighbourhood. If the efforts of the Municipal authorities and the Hospital Managers are not equal to the task of removing a nuisance that is a menace to the public health of Parel, the transfer of the College elsewhere will be necessary. Dr. Nariman has written an interesting report, and the acknowledgments of Government are due to him and the rest of the College staff for their successful discharge of their duties."

THE NEW MEDICAL CURRICULUM

The General Medical Council has decided that all students who have not been registered before Jan. 1st, 1892, shall undergo a curriculum of study of five years' duration before they can be qualified to practise.

A five years' compulsory minimum will mean that most students will not pass all their examinations within six years, especially as the number of examinations will be increased by the Conjoint Examining Board, in England at any rate, from three to four. The advocates of a lengthened curriculum in the General Medical Council mainly dwelt upon the practical advantages which would be gained by the medical student if he devoted the additional year to acquiring a knowledge of the details of private practice and to obtaining greater familiarity with exanthematous fevers, insanity, and some of the more important diseases of particular organs, such as those of the eye and the ear. But, as all University courses already extended to five years, it is only the curricula of the qualifying corporations that will be changed. The first year, now devoted to elementary science, will be included in the five years, so that the intending graduates in the future will not necessarily have more acquaintance with the peculiarities of a private practice than is possessed by the present generation. This insistence on the first year being spent in learning the methods and principles of general science we regard as a most valuable preliminary to the technical education of the medical student, but it can only be useful when the student's general education has been carried to a much higher point than the minimum now demanded. This low standard is the cause of

all subsequent failure which is not due to the student's want of application or idleness, and the requirement of a proper average in general education from the schoolboy who is about to enter as a medical student would do more good to the profession than the mere lengthening of the curriculum. If a boy's attainments in the ordinary subjects taught at school are not far in excess of the minimum laid down by the General Medical Council as sufficient for registration, it will be impossible for him to thoroughly grasp the principles and laws of the general sciences, and without these he can never master those of the specially medical sciences, such as anatomy, physiology, and pathology, on which the technique of our art is based. The future course of study and examination will probably consist of four parts, arranged thus—(1) Physics, Chemistry, Elementary Biology, and perhaps, Elementary Human Anatomy; (2) Human Anatomy and Physiology; (3) Medicine, including Medical Anatomy, Pathology, Materia Medica, Pharmacy, Therapeutics, Forensic Medicine and Public Health, Surgery, Midwifery and Gynæcology; and (4) a final examination in Clinical Medicine and Clinical Surgery. It will depend greatly on the character of this last examination whether a student will be able to spend six months of his fifth year as a pupil to a general practitioner, or will merely have to continue his attendance on routine hospital work; and we have very little doubt that, from the nature and tendency of examinations, the latter course will generally be chosen, and so the views of those who advocate an increase of the practical element in medical education will be no nearer a consummation than under the present *régime*. It will simply result in one more examination for the unfortunate student. The subject of Materia Medica evidently causes much trouble to the framers of these new schemes. Some advocate an early examination in Pharmacy, some a later one. Pharmacy is purely dispensing, and a certificate from a practitioner who dispenses his medicines, or from a member of the Pharmaceutical Society, is all that should be required. All such knowledge as is necessary for a medical practitioner can really be gained in a comparatively short time, but can hardly be tested by examination. Therapeutics is altogether different from pharmacy, and should be entirely divorced from it. It is one of the most essential parts of the study of medicine, and should always be included in that examination which deals with medical theory and practice; and it cannot be expected that a student will have a sufficient, much less a thorough, acquaintance with its details until he has had a fairly large experience in clinical medicine.

The Lancet.

COLOURING OF GREEN PEAS WITH COPPER—IMPORTANT GLASGOW PROSECUTION.

On Sept. 2 Mr. Malcolm Campbell was charged before Sheriff Birnie with having, on June 26, sold to Inspector Inglis, of the Glasgow Sanitary Department, a tin of green peas, which was found to coutain 1·4 grains of sulphate of copper per lb. of peas.

A plea of "Not guilty" was tendered.

Mr. JOHN LINDSAY, writer, prosecuted on behalf of the sanitary authorities; and Mr. DAVID T. COLQUHOUN appeared for the defender.

Inspector INGLIS, having proved the purchase of the tin, admitted in cross-examination that it had the following notice labelled on it:—"NOTICE.—A minute quantity of copper has been used by the manufacturer to improve the colour of the peas; but they are guaranteed not injurious."

Dr. JOHN CLARK, city analyst, said that he analysed two portions of the sample of peas submitted to him, and found them to contain the proportion of copper labelled. The tin, when he received it, was unopened, and he opened it and divided it by the eye, but did not weigh it.

Professor CHARTERIS, University of Glasgow, said he had made a study of poisons, and regarded sulphate of copper as a poison. If a quantity of sulphate of copper, to the extent of 1·4 grains, were continued for a day or two it would be injurious to the health of even an ordinary person, and would be more injurious to a delicate or a a young person. Sulphate of copper was a cumulative poison.

Cross-examined:—He had never known a case of acute copper poisoning from a dose of 1·4 grains per pound. There was legumen in peas, and it was similar to egg-albumen, which was used as an antidote to copper poisoning. The legumen and the copper in the tinned peas would form albumenoid of copper, part of which would be absorbed into the system, but the bulk, being insoluble, would pass away. Mr. COLQUHOUN quoted from Wood's "Therapeutics" a statement that the attractive colour of tinned peas was due to copper, and the general verdict of commissions on the subject held in France and Germany had been that no harm had been produced by the use of copper, and the fact that 20,000,000 tins of these peas were consumed every year, and that thirty-six years' continuance of the system established that no harm had been done, was sufficient to prove that the vegetables were not poisonous.

Prof. CHARTERIS said that he did not agree with that. A dose of sulphate of copper was a quarter of a grain. Asked if it was not the case that copper was prescribed as a tonic from a quarter to two grains thrice daily, Professor Charteris replied that copper was almost never used as a tonic now; it was used as an emetic in a maximum dose of ten grains.

Professor SIMPSON, Glasgow Univerity, said he had made poisons a special study. Sulphate of copper was a poison. A pound of peas, mixed with 1·4 grains of sulphate of copper, would have a deleterious effect on an ordinary person's health, and he would not like to say what effect it would have on a young and delicate person, or a dyspeptic unless he knew the person. If repeatedly taken it would cause chronic poisoning. He would not fix a standard up to which green peas, mixed with copper, could be taken with impunity. It would be very dangerous to take repeated small doses of copper. The symptoms of chronic poisoning by copper would develop in a short time, namely, irritation of the stomach and bowels, vomiting, purging, tremors of the limbs, sometimes jaundice, and sometimes, in extreme cases, paralysis. The combination that was formed by the legumen and the sulphate of copper was liable to be decomposed by the acids of the stomach, and if albumen were given as an antidote to copper poisoning it must be removed by emetics. Sulphate of copper was a cumulative poison. It was more dangerous in small quantities, because it was insidious. If taken in a large dose it would call for treatment at once.

Cross-examined:—Two tablespoonfuls of such peas might affect a person with a delicate mucous membrane. He had in his practice come across cases of chronic copper poisoning, but he had never come across a case of

poisoning from tinned green peas. He would advise a person not to take such peas.

Dr. RUSSELL, medical officer of health for the city, expressed views similar to those of the last two witnesses, but in cross-examination, admitted he had never known a case of chronic poisoning from tinned green peas.

Professor DALZIEL, of the Andersonian College, expressed the opinion that 1 lb. of peas mixed with 1·4 grains of sulphate of copper would be injurious to health, but that that quantity, divided among seven persons, would be perfectly safe.

This closed the case for the prosecution.

For the defence, Prof. DOUGALL, of Great Mungo's College, said that he and his family had used tinned peas during the winter for a number of years, and had never experienced any injurious effect. He had been taking the brand referred to in this case for several weeks. A tin served five or six perons, giving about one-sixth of a grain of sulphate of copper to each person. That was not a quantity injurious to health, it was quite the reverse in some cases. Even taken daily along with peas it would not be injurious. It would act as a nervine tonic. A person in a weak state of health would not be more injured by tinned peas than by green peas. The latter were rather indigestible. In the proportion referred to sulphate of copper was not a poison. The medical profession were in the habit of prescribing one and a half to two grains as a tonic for several weeks. The albumenoid of copper was quite insoluble, so that it could not enter into the system. He had been a doctor for twenty-five years, during sixteen of which he was connected with the Glasgow Royal Infirmary. At the dispensary there upwards of 40,000 patients had passed through his hands, and he had never seen a case of chronic copper-poisoning. The legumen of the peas rendered the sulphate of copper insoluble, and thus prevented it being absorbed into the system.

Professor GLAISTER of St. Mungo's College, gave similar evidence. He and Dr. Barlow had both taken tinned peas regularly. The latter said he had recently continued taking them for seventeen consecutive days, without any injurious results. A delicate person was safer to take tinned than fresh peas, in consequence of their tonic action. In his opinion, no amount would be injurious unless it had a bitter taste.

Dr. ANGUS MCPHEE said he would not object to the consumption of tinned peas so far as the copper was concerned. He had never heard of copper being a cumulative poison.

Dr. CLARK, city analyst, recalled, described his process of analysis, stating that he drained off the water in the tin, and analysed the peas only. His colleague, he was aware, analysed the full contents of a tin—both water and peas, It was at his suggestion that Mr. Campbell had put the label on the tins, warning the purchasers that the peas were coloured with copper, but guaranteeing that they were not injurious. As a chemist he believed that the addition of the sulphate of copper did not render the peas injurious to health.

Mr. CAMPBELL, the defendant in the case, was next put into the witness box, and said that tinned peas had been sold in Glasgow for the last twenty-seven years, and he had heard of no complaints hitherto regarding them.

The case, which lasted more than five hours, was adjourned till Saturday.

MILK INFECTION AND ITS PREVENTION

Owing to the occurrence last year of certain cases of diphtheria in Wimbledon, Mr. Cooper, the well-known and active surveyor of that district, suggested the adoption of a precaution as to milk-supplies which was a true measure of prevention and which went in advance of any similar action that has come under our notice. The plan having been matured by the medical officer of health, notification forms have been provided for the medical practitioners of those districts from which Wimbledon purveyors of milk secure their supplies, and, these forms being sent in weekly at the usual fee for notification, the Wimbledon health department are at once acquainted with the existence of infectious disease in districts in which they are interested by reason of their milk service, and facilities are thus afforded for checking and at once tracing out any mischief that may have milk as the vehicle of its distribution. Some such scheme is sadly wanted for the metropolis. for it is far more important, in milk epidemics, to know of the occurrence of disease in the milk-supplying districts than to learn when it is usually too late of the distribution of the infection in the midst of a London community.—*The Lancet.*

THE INSPECTION OF COWS IN DAIRY FARMS

In a recent report by Dr. J. B. Russell, of Glasgow, a good illustration is given of the value of the powers granted by the Public Health Act for the inspection of cows in dairies supplying milk to the city. A series of cases of severe diarrhœa, occurring among the customers of a particular dairy, was reported the dairyman, his child, and a dairymaid being also affected. The milk was obtained from two farms, both of which were inspected and found to be in bad condition as to drainage and water supply. On one of the farms the inspector reported the presence of a cow that seemed to be suffering from tuberculosis. Principal McCall was instructed to inspect this farm, and reported one of the animals as markedly affected by broncho-pneumonia and probably tuberculosis. The farmer was then informed that the milk of this cow was dangerous to health, and that it he retained it he would be sued for a penalty. The farmer sent the cow to a city slaughterhouse, where its lungs and liver were found, on inspection by Professor McCall, to be full of tuberculous matter. The prompt action of Dr. Russell and his staff in the application of their powers has thus removed a serious and constant risk to the public health.—*Brit. Med. Journal.*

Stung by Jelly Fish.

Bathers will do well to avoid the *Medusidæ* while enjoying a swim. Dr. Lawson, of Rothesay, writes to *The Glasgow Medical Journal* giving several instances of such mishaps. One patient he found in great distress, and suffering from an unusual train of symptoms, which he attributed to the effects of an encounter he had had with a jelly fish when bathing about an hour previously. When swimming from the bathing-place the patient's head and neck came in contact with a very large jelly fish. He had some difficulty in getting clear of it, and in doing so used his right hand and arm; he had to dive twice, and one of his feet came in contact with it. Reaching shore he felt a painful tingling sensation all over the parts which had been in contact with the fish, as well as in the eyes, nostrils, mouth, and throat. When the doctor saw him he was lying on his bed writhing with agony. He said his face, neck, arm, and leg tingled as if he had been stung by nettles, but their effects in-

tensified a thousandfold. The doctor gave several ounces of fluid magnesia in milk, applied a cooling lotion to the face, and ordered a hot bath. The bath gave considerable relief.

"Pink-Eye" at Aldershot.

The troop horses of the 5th Dragoon Guards, at Aldershot, have "pink-eye" amongst them to a serious extent. Veterinary-Surgeon Turnbull, who has charge of the horses, has been allowed to order whatever changes of diet in the forage he may consider necessary. The horses of the Cavalry Brigade at Aldershot this season have had very severe work. It is thought that the forage ration is not sufficient for horses when working in marching order in very wet weather. The ration is only for two meals a day. The present system of issue is far from perfect, and deception as regards quality is practised to a great extent. The Russian oats now being imported are very inferior."—*Army and Navy Gazette.*

Human and Animal Lymph.

Mr. Fras. E. Place, M.R.C.V.S., writing to *The Lancet*, says I have read with interest the correspondence and your annotation anent calf lymph, and am surprised to find that the calf is taken to be free from disease. That he is free from syphilis I grant; but tuberculosis is very common among calves apparently healthy. During the past three days I have found two cows suffering from this disease, one with the udder badly affected, rearing calves to all appearance perfectly healthy and fit to act as culture grounds for lymph. It is needless to add that tuberculosis is not the only disease from which apparently healthy calves suffer. I fancy healthy children are as common as healthy calves.

CORRESPONDENCE.

MEDICAL MEN AND VETERINARY SURGEONS.

Members of the Veterinary profession will doubtless estimate the opinion expressed by Dr. Burdon Sanderson at the Hygienic Congress, as to their diagnostic capabilities at its real value—*nil*. "Everything—says the learned Medico—"depends on the diagnosis. The veterinary surgeon is not competent to make what the French call the *diagnose précise*." Then I would ask this gentleman who has been honoured in being placed on the court of our examiners, who, or what class of individual he considers is competent to make the *diagnose précise*?

Belonging himself to a profession, the members of which are notoriously ignorant of the diseases of the lower animals, shall the mighty man be found there? The doctor may, perhaps remember a little conversation on the diagnosis of lung disease which we had together many years ago, if not, I shall be glad to refresh his memory.

Fancy a veterinary surgeon stating in public that medical specialists in tuberculous disease were not competent to make the *diagnose précise*.

A very eminent and well-known medical man to whom I often exhibited morbid pathological specimens, observed "We know very little or nothing of animal diseases, and inspection of meat is not our province. If I invited you to attend a *post-mortem* of a person who had died from, say, some form of liver disease, I should not do it for the sake of your opinion as a veterinary surgeon, but simply to show you an interesting pathological condition."

In my present district, which is a fashionable health resort, the inspection of meat etc., devolves on the inspector of nuisances, yet, surely, the greatest necessity exists for the rigid examination of food which is supplied to the invalids who largely populate such places, and especially those of a phthysical tendency.

As probably further notice will be taken of Dr. Burdon Sanderson's statement, I will for the present waive any further remarks on the subject.

Woodroffe Hill, F.R.C.V.S.

CRUELTY TO ANIMALS.

Dear Sir,

I have been deeply interested in the correspondence *re* R.S.P.C.A., that has appeared in your journal of the last two issues.

I trust no veterinary surgeon has a wrong word to speak or write of the R.S.P.C.A., but that every member of the profession extends his sympathy and support to it. It is of the society's officers that one is compelled to complain *e.g.*

Some two to three years ago the local inspector R.S.P.C.A., prosecuted a milkseller here under the following circumstances,—

Aged black horse left home with warble on back; during journey said warble rubbed off by saddle and left perfectly circular wound with strictly defined edges. Before the magistrates the inspector swore on oath that the wound was of old standing and exhibited a diagram of same showing wound to be twice its size, with jagged edges and irregularly oblong in shape. The diagram was sketched with blue pencil.

In cross-examination the inspector was obliged to admit that when he visited the horse the wound was covered with an "egg cloth," that he did not remove the cloth but only raised it and that therefore the diagram, which he had exhibited, to the Bench as being "an exact representation, your Worships," was purely ideal. Consequently the case was dismissed though my client had his own costs to pay.

I immediately wrote to Mr. Colam particulars of above but received no reply for some time, and then, only to the effect that Mr. Colam was away and that my communication would be placed before him on his return. From that day to this I have heard nothing further of the matter. That inspector is still in the employ of the society. Now, Mr. Colam, if he had chosen, could have proved my statement to be correct. But I am treated with contempt and the officer's services are retained. What is the corollary? I leave that to you and your readers.

If an officer deliberately mis-states let us not blame the society but rather let us try to expose the inefficiency and unfairness of its staff.

I deeply regret to state that on one occasion I saw a M.R.C.V.S. give a gold coin as a "tip" or "bribe" to a society's officer.

Fortunately for us, in Halifax, we have at present an officer of the society who refuses to touch the paltry cases that his confrères are making so much of in neighbouring towns.—Yours truly,

Halifax. A. William Briggs.

Communications, Books, and Papers received:—Messrs. F. C. Mahon, A. W. Briggs, H. J. Dawes, C. H. Sheather, C. Ward, "Australasian Veterinary Journal," "American Veterinary Review."